

ABSTRACT

The present invention is directed to methods of producing soot used in the manufacture of optical waveguides. Both non-aqueous liquid reactants and aqueous solutions containing one or more salts are delivered through an atomizing burner assembly to form a homogenous soot stream containing the oxides of the selected elements contained within the non-aqueous liquid reactant and the aqueous solution. The resulting multi-component soot is collected by conventional methods to form preforms used in the manufacture of optical waveguide fibers. Preforms formed by the methods are also disclosed.

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